

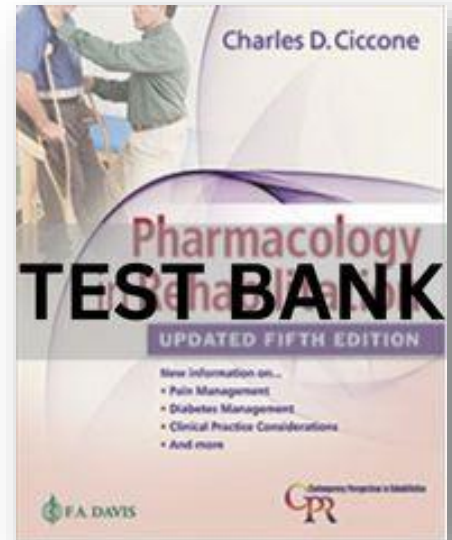
# Pharmacology in Rehabilitation 5th Edition Test Bank

## Chapter 01

### Multiple Choice

Identify the choice that best completes the statement or answers the question.

- \_\_\_\_\_ 1. The use of specific drugs to prevent, treat, or diagnose disease is known as
- toxicology
  - pharmacokinetics
  - pharmacotherapeutics
  - toxicokinetics
  - dynamic equilibrium
- \_\_\_\_\_ 2. The study of how the body deals with a drug in terms of the way the drug is absorbed, distributed, and eliminated is known as
- toxicology
  - pharmacodynamics
  - pharmacy
  - pharmacokinetics
  - biodynamics
- \_\_\_\_\_ 3. Toxicology is
- the study of the harmful effects of chemicals
  - the study of a drug's beneficial effects
  - the analysis of drug absorption, distribution, and metabolism
  - the preparation and dispensing of therapeutic medications
  - the analysis of a drug's molecular structure
- \_\_\_\_\_ 4. The generic name of a drug
- is also known as the "official" or "nonproprietary" name
  - is often derived from the chemical name
  - tends to be somewhat shorter than the drug's chemical name
  - all of the above are true
- \_\_\_\_\_ 5. If there is no existing patent for a drug, or if the patent has expired, the same drug may be marketed by separate drug companies under different
- chemical names
  - generic names
  - trade names
  - nonproprietary names
  - organic names
- \_\_\_\_\_ 6. The generic form of a drug is considered to be as safe and effective as the original, brand-name product if the generic form \_\_\_\_\_ as the brand-name drug.



## **Pharmacology in Rehabilitation 5th Edition Test Bank**

- a. has the same type and amount of the active ingredient(s)
- b. uses the same administration route
- c. has the same pharmacokinetic profile (drug absorption, plasma levels, and so forth)
- d. produces the same therapeutic effects
- e. all the above are true

- \_\_\_\_\_ 7. During drug testing and approval, the drug is usually tested in a relatively small sample (200 to 300 people) with a specific disease or pathologic condition during
- a. preclinical trials
  - b. phase 1 clinical trials
  - c. phase 2 clinical trials
  - d. postmarketing surveillance
- \_\_\_\_\_ 8. Drugs that can be purchased directly by the consumer without a prescription are also known as
- a. nonproprietary medications
  - b. Schedule I controlled substances
  - c. Schedule II controlled substances
  - d. Schedule III controlled substances
  - e. over-the-counter drugs
- \_\_\_\_\_ 9. The point at which there is no further increase in the response to a drug even if the dosage continues to be increased is known as the
- a. ceiling effect
  - b. maximal efficacy
  - c. potency
  - d. all of the above
  - e. A and B only
- \_\_\_\_\_ 10. When two drugs are compared, the drug that requires a lower dosage to produce the same effect as a higher dose of the second drug is said to
- a. be more potent
  - b. be less potent
  - c. have a great maximal efficacy
  - d. have a greater therapeutic index
  - e. be pharmacosuperior
- \_\_\_\_\_ 11. When evaluating drug safety, the dosage that causes 50 percent of subjects to exhibit a specific adverse effect is known as the
- a. median therapeutic dose
  - b. median toxic dose
  - c. therapeutic index
  - d. ceiling effect
  - e. threshold dose
- \_\_\_\_\_ 12. In general, the greater the value of the \_\_\_\_\_, the safer the drug is considered to be.
- a. median effective dose
  - b. threshold dose
  - c. therapeutic index (TI)
  - d. ceiling effect
  - e. potency index
- \_\_\_\_\_ 13. Regarding drug development and approval, an “orphan drug” is a drug that is
- a. prescribed for conditions other than those approved by the FDA
  - b. given special funding for development because it is used in a small patient population with a relatively rare disease

## **Pharmacology in Rehabilitation 5th Edition Test Bank**

- c. available directly to consumers without a prescription
- d. only available in countries outside the United States

- \_\_\_\_\_ 14. Prescription use of a drug to treat conditions other than those that the drug was originally approved to treat (off label prescribing)
- a. is illegal and punishable by revoking a physician's license
  - b. is legal only if the Center for Disease Control provides written permission to the physician
  - c. is legal only if the drug is not a controlled substance
  - d. is legal and quite common in the United States
  - e. is legal only after the patent for a drug has expired

# Pharmacology in Rehabilitation 5th Edition Test Bank

## **Chapter 01** **Answer Section**

### **MULTIPLE CHOICE**

- |            |        |
|------------|--------|
| 1. ANS: C  | PTS: 1 |
| 2. ANS: D  | PTS: 1 |
| 3. ANS: A  | PTS: 1 |
| 4. ANS: D  | PTS: 1 |
| 5. ANS: C  | PTS: 1 |
| 6. ANS: E  | PTS: 1 |
| 7. ANS: C  | PTS: 1 |
| 8. ANS: E  | PTS: 1 |
| 9. ANS: E  | PTS: 1 |
| 10. ANS: A | PTS: 1 |
| 11. ANS: B | PTS: 1 |
| 12. ANS: C | PTS: 1 |
| 13. ANS: B | PTS: 1 |
| 14. ANS: D | PTS: 1 |

## **Chapter 02**

### **Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

- \_\_\_\_\_ 1. All of the following are parenteral routes of drug administration EXCEPT the \_\_\_\_\_ route.
- oral
  - inhalation
  - injection
  - topical
  - transdermal
- \_\_\_\_\_ 2. The \_\_\_\_\_ effect occurs when drugs are transported initially to the liver where a significant amount of the drug may be metabolized and destroyed before the drug reaches its primary site of action.
- malabsorptive
  - first pass
  - Bohr
  - bioequivalence
  - pharmacodynamic
- \_\_\_\_\_ 3. Iontophoresis, phonophoresis, and medicated patches all use the \_\_\_\_\_ route to administer drugs.
- oral
  - inhalation
  - injection
  - transdermal
  - rectal
- \_\_\_\_\_ 4. This first pass effect is of particular concern when drugs are administered
- topically

## **Pharmacology in Rehabilitation 5th Edition Test Bank**

- b. by intravenous injection
  - c. by subcutaneous injection
  - d. by inhalation
  - e. orally
- \_\_\_\_\_ 5. The extent to which a drug reaches the systemic circulation is referred to as
- a. bioequivalence
  - b. biotransformation
  - c. bioavailability
  - d. biodistribution
  - e. last pass metabolism
- \_\_\_\_\_ 6. When crossing cell membranes, drugs will diffuse more readily through the lipid layer if they are
- a. non-lipid soluble
  - b. in a neutral, nonionized form
  - c. in a charged, ionized form
  - d. large proteins
- \_\_\_\_\_ 7. Osmosis refers to the special case of diffusion where the diffusing substance is
- a. a lipid soluble drug
  - b. a nonlipid soluble drug
  - c. a protein
  - d. a carbohydrate
  - e. water
- \_\_\_\_\_ 8. Carrier specificity, expenditure of energy, and ability to transport substances against a concentration gradient are all characteristics of
- a. simple, passive diffusion
  - b. facilitated diffusion
  - c. active transport
  - d. endocytosis
  - e. exocytosis
- \_\_\_\_\_ 9. A drug that has a volume of distribution of approximately 42 L will typically be
- a. bound extensively to plasma proteins
  - b. retained in the bloodstream
  - c. concentrated in the tissues
  - d. stored in the liver and kidneys
  - e. distributed uniformly throughout all of the body fluids
- \_\_\_\_\_ 10. The primary site for drug storage in the body is
- a. muscle
  - b. bone
  - c. skin
  - d. adipose tissue
  - e. the brain
- \_\_\_\_\_ 11. Drug developers are exploring nanotechnology (i.e., the use of very small particles with specific physical properties) as a way to
- a. target and deliver drugs to specific tissues within the body
  - b. facilitate drug absorption from the GI tract
  - c. enable drugs to cross the blood brain barrier more easily

## **Pharmacology in Rehabilitation 5th Edition Test Bank**

- d. all the above
- e. none of the above

# Pharmacology in Rehabilitation 5th Edition Test Bank

## Chapter 02 Answer Section

### MULTIPLE CHOICE

- |            |        |
|------------|--------|
| 1. ANS: A  | PTS: 1 |
| 2. ANS: B  | PTS: 1 |
| 3. ANS: D  | PTS: 1 |
| 4. ANS: E  | PTS: 1 |
| 5. ANS: C  | PTS: 1 |
| 6. ANS: B  | PTS: 1 |
| 7. ANS: E  | PTS: 1 |
| 8. ANS: C  | PTS: 1 |
| 9. ANS: E  | PTS: 1 |
| 10. ANS: D | PTS: 1 |
| 11. ANS: D | PTS: 1 |

## Chapter 03

### Multiple Choice

*Identify the choice that best completes the statement or answers the question.*

- \_\_\_\_\_ 1. Drug metabolism that occurs when a drug is changed chemically following administration is also known as
- biotransformation
  - excretion
  - retoxification
  - degradation
  - allosterification
- \_\_\_\_\_ 2. Biotransformation usually results in an altered version of the original compound known as
- bile
  - a metabolite
  - an antidrug
  - albumin
  - a steroid
- \_\_\_\_\_ 3. Drug oxidation occurs when \_\_\_\_\_ the original compound.
- oxygen is added to
  - hydrogen is removed from
  - an endogenous substance such as acetyl coenzyme is coupled to
  - all of the above are true
  - only A and B are true
- \_\_\_\_\_ 4. The process of breaking the original drug compound into separate parts is known as
- oxidation
  - reduction
  - conjugation
  - hydrolysis
  - biodestruction

## **Pharmacology in Rehabilitation 5th Edition Test Bank**

- \_\_\_\_\_ 5. The primary location for drug metabolism (biotransformation) is the
- liver
  - kidneys
  - lungs
  - skeletal muscle
  - adipose tissue
- \_\_\_\_\_ 6. Prolonged administration of therapeutic drugs and other substances (alcohol, nicotine) may enhance the liver's ability to metabolize certain drugs, thus decreasing their therapeutic effect. This process is known as \_\_\_\_\_.
- glomerulonephritis
  - biliary cirrhosis
  - decreased hepatic blood flow
  - enzyme induction
- \_\_\_\_\_ 7. Drugs and their metabolites are excreted from the body primarily by
- the liver
  - the kidneys
  - the lungs
  - skeletal muscle
  - adipose tissue
- \_\_\_\_\_ 8. To calculate drug elimination rates, blood flow to an organ and the fraction of drug removed from the plasma per unit of time as it passes through the organ are measured to determine drug
- excretion
  - biotransformation
  - clearance
  - deactivation
  - esterification
- \_\_\_\_\_ 9. The amount of time required for 50 percent of the drug remaining in the body to be eliminated is known as the
- median effective dose
  - median toxic dose
  - median efficacy
  - median threshold dose
  - half-life
- \_\_\_\_\_ 10. Variations in drug response may occur because of individual differences in the patient's
- age
  - genetics
  - gender
  - diet
  - all the above are true
- \_\_\_\_\_ 11. Drug metabolism by the liver and other organs typically creates a more \_\_\_\_\_ compound, thus enabling the compound to be \_\_\_\_\_ when it reaches the nephrons in the kidney.
- polar; excreted
  - neutral; excreted
  - polar; reabsorbed
  - neutral; reabsorbed
  - none of the above; metabolism does not affect the polarity of drug byproducts



## **Pharmacology in Rehabilitation 5th Edition Test Bank**

- \_\_\_\_\_ 12. Most drugs are metabolized by \_\_\_\_\_ to the drug molecule, and the enzymes that catalyze these reactions are typically located at the \_\_\_\_\_ of specific cells.
- a. adding an oxygen or removing a hydrogen; mitochondria
  - b. adding a hydrogen or removing an oxygen; mitochondria
  - c. adding an oxygen or removing a hydrogen; rough (granular) endoplasmic reticulum
  - d. adding a hydrogen or removing an oxygen; rough (granular) endoplasmic reticulum
  - e. adding an oxygen or removing a hydrogen; smooth (agranular) endoplasmic reticulum

# **Pharmacology in Rehabilitation 5th Edition Test Bank**

## **Chapter 03**

### **Answer Section**

#### **MULTIPLE CHOICE**

- |            |        |
|------------|--------|
| 1. ANS: A  | PTS: 1 |
| 2. ANS: B  | PTS: 1 |
| 3. ANS: E  | PTS: 1 |
| 4. ANS: D  | PTS: 1 |
| 5. ANS: A  | PTS: 1 |
| 6. ANS: D  | PTS: 1 |
| 7. ANS: B  | PTS: 1 |
| 8. ANS: C  | PTS: 1 |
| 9. ANS: E  | PTS: 1 |
| 10. ANS: E | PTS: 1 |
| 11. ANS: A | PTS: 1 |
| 12. ANS: E | PTS: 1 |

## **Chapter 04**

### **Multiple Choice**

*Identify the choice that best completes the statement or answers the question.*

- \_\_\_\_\_ 1. The primary location for receptors that recognize drugs and endogenous compounds is
- on the surface of the cell
  - in the cytoplasm of the cell
  - on the cell's nuclear membrane
  - on the cell's chromosomes
  - on the ribosomes
- \_\_\_\_\_ 2. The acetylcholine receptor located on the postsynaptic membrane of the skeletal neuromuscular junction is an example of a membrane receptor that
- is linked directly to an intracellular enzyme
  - is linked directly to a regulatory G protein
  - functions as an ion channel or pore
  - moves (translocates) to the cell's nucleus when stimulated
  - none of the above are true
- \_\_\_\_\_ 3. Signals from the surface receptor are transduced into the appropriate response within the cell via intermediate regulatory proteins that are activated by binding guanine nucleotides, hence they are often termed \_\_\_\_\_ proteins.
- activating
  - binding
  - controlling
  - nucleotide
  - G